



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 09/539,966  
Applicant : Stephen D. Macarthur  
Filed : March 31, 2000  
T.C./A.U. : 2182  
Examiner : Mike Nguyen

Confirmation No.: 2142

**RECEIVED**

MAY 11 2004

Technology Center 2100

Docket No. : EMC2-044PUS  
Customer No. : 022494

Certificate of Mailing (37 C.F.R. 1.8(a))

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first-class mail with in an envelope addressed to: Commissioner for Patents, P. O. Box 1450 Alexandria, VA 22313-1450 on the date set forth below.

5-6-04  
Date of Signature  
and Mail Deposit

By: Cara Egan  
Cara Egan

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

It is desired to cite for the record in this application the enclosed documents listed on the attached copy of PTO form PTO/SB/08A (Formerly #1449). The paragraph(s) marked below are applicable to this Information Disclosure Statement.

[ ] (1) The enclosed Information Disclosure Statement is being filed: within three months of the filing date; or within three months of the entry of the national stage of the above-identified application; or before the mailing of a first Office Action on the merits; or before the mailing of a first Office Action after the filing of a request for continued examination under 37 C.F.R. §1.114. Accordingly, Applicant(s) believes that no fee or statement is required.

mailing of a first Office Action after the filing of a request for continued examination under 37 C.F.R. §1.114. Accordingly, Applicant(s) believes that no fee or statement is required.

[X] (2) Pursuant to 37 C.F.R. § 1.97(c), the enclosed Information Disclosure Statement is being filed before the mailing date of a final action or a notice of allowance and is accompanied by the fee set forth in 37 C.F.R. § 1.17(p).

SUBMISSION UNDER 37 C.F.R. § 1.97(c)

INCLUDING A STATEMENT UNDER 37 C.F.R. § 1.97(e)(1)

[ ] (3) Pursuant to 37 C.F.R. § 1.97(c), the enclosed Information Disclosure Statement is being filed before the mailing date of a final action or a notice of allowance and is accompanied by a statement under 37 C.F.R. § 1.97(e)(1). The undersigned hereby states that each item of information contained in the attached Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application mailed not more than three months prior to the filing of the accompanying Information Disclosure Statement.

SUBMISSION UNDER 37 C.F.R. § 1.97(c)

INCLUDING A STATEMENT UNDER 37 C.F.R. § 1.97(e)(2)

[ ] (4) Pursuant to 37 C.F.R. § 1.97(c), the enclosed Information Disclosure Statement is being filed before the mailing date of a final action or a notice of allowance and is accompanied by a statement under 37 C.F.R. § 1.97(e)(2). The undersigned hereby states that no item of information contained in the accompanying Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned, after making reasonable inquiry, no item of information contained in the accompanying Information Disclosure Statement was known to any individual having a duty of disclosure as set forth in 37 C.F.R. § 1.56 (c) more than three months prior to the filing of the accompanying Information Disclosure Statement.

SUBMISSION UNDER 37 C.F.R. § 1.97(c)

INCLUDING STATEMENTS UNDER 37 C.F.R. §§ 1.704(d) AND 1.97(e)(1)

[ ] (5) Pursuant to 37 C.F.R. § 1.97(c), the enclosed Information Disclosure Statement is being filed before the mailing date of a final action or a notice of allowance and is accompanied by statements under 37 C.F.R. §§ 1.704(d) and 1.97(e)(1). The undersigned hereby states that each item of information contained in the attached Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application mailed not more than three months prior to the filing of the accompanying Information Disclosure Statement and was not received by any individual designated in §1.56(c) more than thirty days prior to the filing of the accompanying Information Disclosure Statement.

SUBMISSION UNDER 37 C.F.R. § 1.97(d)

INCLUDING A STATEMENT UNDER 37 C.F.R. §1.97(e)(1)

[ ] (6) Pursuant to 37 C.F.R. § 1.97(d), the enclosed Information Disclosure Statement is being filed on or before payment of the issue fee and is accompanied by a statement under 37 C.F.R. § 1.97(e)(1) and the fee required under 37 C.F.R. § 1.17(p). The undersigned hereby states that each item of information contained in the accompanying Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the Information Disclosure Statement.

SUBMISSION UNDER 37 C.F.R. § 1.97(d)

INCLUDING A STATEMENT UNDER 37 C.F.R. §1.97(e)(2)

[ ] (7) Pursuant to 37 C.F.R. § 1.97(d), the enclosed Information Disclosure Statement is being filed on or before payment of the issue fee and is accompanied by a statement under 37 C.F.R. § 1.97(e)(2) and the fee required under 37 C.F.R. § 1.17(p). The undersigned hereby states that no item of information contained in the accompanying Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned, after making reasonable inquiry, no item of information contained in the accompanying Information Disclosure Statement was known to

any individual having a duty of disclosure as set forth in 37 C.F.R. § 1.56(c) more than three months prior to the filing of the accompanying Information Disclosure Statement.

SUBMISSION UNDER 37 C.F.R. § 1.97(d)

INCLUDING STATEMENTS UNDER 37 C.F.R. §§ 1.704(d) AND 1.97(e)(1)

[ ] (8) Pursuant to 37 C.F.R. § 1.97(d), the enclosed Information Disclosure Statement is being filed on or before payment of the issue fee and is accompanied by statements under 37 C.F.R. §§ 1.704(d) and 1.97(e)(1) and the fee required under 37 C.F.R. § 1.17(p). The undersigned hereby states that each item of information contained in the attached Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application mailed not more than three months prior to the filing of the accompanying Information Disclosure Statement and was not received by any individual designated in §1.56(c) more than thirty days prior to the filing of the accompanying Information Disclosure Statement.

The filing of this Information Disclosure Statement is not a representation by the undersigned as to personal knowledge of the contents of every word or phrase of the material enclosed or that reliance on other suitably trained professionals has not been made.

If a search report of a searching agency is enclosed identifying the nature of the relevance of each document, such a designation is deemed to satisfy Rule 98(a) (3) even if in a foreign language, since the few terms of relevance therein are deemed of universal cognizance. However, Applicant(s) does not necessarily adopt the position reflected by that report.

The Commissioner is hereby authorized to charge payment of any additional fees associated with this communication or credit any overpayment to Deposit Account No. 500845.

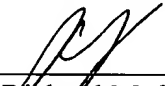
Dated: \_\_\_\_\_

5-6-04

Respectfully submitted,

DALY, CROWLEY & MOFFORD, LLP

By: \_\_\_\_\_

  
Richard M. Sharkansky  
Reg. No. 25,800  
Attorney for Applicant(s)  
275 Turnpike Street, Suite 101  
Canton, MA 02021-2354  
Tel.: (781) 401-9988, ext. 23  
Fax: (781) 401-9966



PTO/SB/08A (02-03)

Approved for use through 04/30/2003. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number	09/539,966
Filing Date	March 31, 2000
First Named Inventor	Stephen D. Macarthur
Art Unit	2182
Examiner Name	Mike Nguyen
Attorney Docket Number	EMC2-044PUS

Sheet 1 of 3

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
		US- 4,780,808	10/25/1988	Moreno et al.	
		US- 5,274,645	12/28/1993	Idleman et al.	
		US- 5,386,511	01/31/1995	Murata et al.	
		US- 5,551,048	08/27/1996	Steely, Jr.	
		US- 5,586,264	12/17/1996	Belknap et al.	
		US- 5,603,058	02/11/1997	Belknap et al.	
		US- 5,745,790	04/28/1998	Oskouy	
		US- 5,787,265	07/28/1998	Leshem	
		US- 5,903,911	05/11/1999	Gaskins	
		US- 5,920,893	07/06/1999	Nakayama et al.	
		US- 5,948,062	09/07/1999	Tzelnic et al.	
		US- 5,949,982	09/07/1999	Frankeny et al.	
		US- 6,055,603	04/25/2000	Ofer et al.	
		US- 6,205,536	03/20/2001	Yoshida	
		US- 6,240,335	05/29/2001	Wehrung et al.	
		US- 6,338,095	01/08/2002	Yasuda et al.	
		US- 6,304,903	10/16/2001	Ward	
		US- 6,418,496	07/09/2002	Pawlowski et al.	
		US- 6,438,586	08/20/2002	Hass et al.	

**RECEIVED**

MAY 11 2004

Technology Center 2100

**FOREIGN PATENT DOCUMENTS**

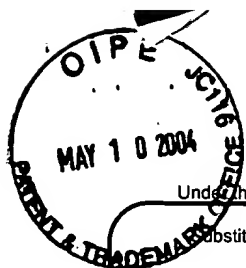
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
		EP 0510821	10/28/1992			
		EP 0795812	09/17/1997			
		JP 8172446	07/02/1996			
		JP 07244634 (Abstract Only)	09/19/1995			
		JP 07244634	09/19/1995			

Examiner  
SignatureDate  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**Complete if Known****INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 2 of 3

Application Number	09/539,966
Filing Date	March 31, 2000
First Named Inventor	Stephen D. Macarthur
Art Unit	2182
Examiner Name	Mike Nguyen
Attorney Docket Number	EMC2-044PUS

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
		US- 6,529,521	03/04/2003	MacArthur	
		US- 6,557,140	04/29/2003	Kakuta et al.	
		US- 6,651,130	11/18/2003	Thibault	
		US- 4,636,946	01/13/1987	Hartung et al.	
		US- 5,115,433	05/19/1992	Baran et al.	
		US- 6,275,953	08/14/2001	Vahalia et al.	
		US- 6,470,389	10/22/2002	Chung et al.	
		US- 6,563,793	05/13/2003	Golden et al.	
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			

**RECEIVED**

MAY 11 2004

Technology Center 2100

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
		JP 7191930	07/28/1995			X
		JP 6337836	12/06/1994			

Examiner  
SignatureDate  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



PTO/SB/08B (02-03)

Approved for use through 04/30/2003. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Applicant Number	09/539,966
Filing Date	March 31, 2000
First Named Inventor	Stephen D. Macarthur
Art Unit	2182
Examiner Name	Mike Nguyen
Attorney Docket Number	EMC2-044PUS

Sheet	3	of	3
-------	---	----	---

**OTHER PRIOR ART—NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		F. HALSALL, "The Role of DQDB", 1994, The Institution of Electrical Engineers, IEE, Savory Place, London WC2R 0BL.UK	

RECEIVED

MAY 11 2004

Technology Center 2100

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.